

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 08 FEB 2006

WIPO PCT

Applicant's or agent's file reference	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/EP2004/011835	International filing date (day/month/year) 18.10.2004	Priority date (day/month/year) 31.10.2003
International Patent Classification (IPC) or national classification and IPC C07D471/08, C11D3/16		
Applicant UNILEVER PLC		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 7 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 11.05.2005	Date of completion of this report 07.02.2006	
Name and mailing address of the International preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Fritz, M Telephone No. +31 70 340-3024 	

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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/011835

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1, 3-34	as originally filed
2	received on 08.06.2005 with letter of 08.06.2005

Claims, Numbers

1-15	received on 02.12.2005 with letter of 02.12.2005
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- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/011835

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1: WO 02/48301 A (UNILEVER PLC; UNILEVER NV; HINDUSTAN LEVER LIMITED)
20 June 2002 (2002-06-20)

D2: WO 00/60045 A (THE PROCTER & GAMBLE COMPANY; PERKINS,
CHRISTOPHER, MARK) 12 October 2000 (2000-10-12)

The present application relates to a bleaching composition comprising a compound (I) as a free ligand or coordinated to a transition metal (claims 1-15).

The ligands (I) can be distinguished from those disclosed in D1 and D2 insofar, as at least one of R1 and R2 is a non-aromatic hydrocarbon group which is a C8-22 alkyl chain.

Therefore the subject-matter of claims 1-15 according to the present case is novel in the sense of Article 33(2) PCT.

As closest prior art can be regarded the ligand N2Py2 according to D1 (p. 33, table) which is also known from ex. 1 of D2 as well as the metal complex according to ex. 2 of D2.

The problem of the present application was to provide further ligands or complexes thereof useful as catalysts for catalytically bleaching substrates in an environment substantially devoid of peroxy species.

This problem has been solved, as can be seen in the description, wherein several representatives of complexes of (I) (R1, R2 being a C8-C22 alkyl group) were tested in comparison with representatives of complexes being within the scope as defined in D1-D2, i.e. bispidine ligands with R1, R2 designating a C1-C4 alkyl group.

It has been demonstrated by the applicant in his letter dated June 08 2005 that the bleaching compositions according to the present case are unexpectedly superior to those of the prior art.

By consequence those bleaching compositions which display these superior activities cannot be considered obvious for the skilled man.

The following is noted in this respect:

The Applicant is entitled to claim all obvious modifications of what was described (cf. Guidelines C-III, 6.2); alternative variations have to be supported by a certain number of examples (s. Guidelines C-II, 4.9); in this case the breadth of the main claim represents a reasonable generalisation of what has been exemplified, so that it can be assumed that every compound falling within its scope actually provides a solution to the problem underlying the invention.

Non-limiting terms like "optionally substituted" (not followed by a list of specific substituents) as used in the claims of the present application are, however, speculative in the sense of Article 33(3) PCT: They include a great variety of structural possibilities not yet explored by the applicant, the effect of which cannot be foreseen having regard to the problem underlying the present invention.

As it was not substantiated that all claimed compounds are an non-obvious solution to the problem underlying the application (cf. Article 33(3) PCT in conjunction with Articles 5 and 6 PCT), an inventive step cannot be acknowledged for the subject-matter of claims 1-15.

Further objections:

It is noted that the search and examination of the compounds (I) and complexes thereof was carried out for those representatives thereof in which at least one of R1, R2 is C8-C22 alkyl, this term designating a straight or branched chain comprising 8-22 C-atoms, as the skilled reader would inevitably understand it.

The extended definition as found in the description (p. 13, line 9 - p. 14, line 18) is not acceptable and should - in an eventual national phase - be corrected in order to fulfil the requirements of Article 6 PCT.